

REMARKS

Claims 1-7 are all the claims pending in the application. By this Amendment, new claims 4-7 are added.

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iverson *et al.* (U.S. Patent No. 5,832,234; hereinafter “Iverson”). Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jeong (U.S. Patent No. 6,393,060; hereinafter “Jeong”). Applicant adds the new claims listed in the Appendix below and submit the following arguments in traversal of the prior art rejections.

An embodiment of the Applicant’s invention relates to a coding mode selecting method in a video encoding system. In the embodiment, an SAD value of the input frame data is determined and the SAD value is compared with a predetermined SAD threshold. When the SAD value of the input frame is not greater than the predetermined SAD threshold, the input frame is coded in an inter-coding mode. When the SAD value of the input frame is greater than the predetermined SAD threshold, the input frame is coded in an intra-coding mode.

Rejection of Claims 1-3 under § 103(a) over Iverson

Rejection of Claims 1-3 under § 103(a) over Jeong

Iverson discloses the generation of block-level statistical measures to generate macroblock-level statistical measures which are used to determine how to encode the macroblocks of the image.

Jeong discloses an apparatus and method for coding and decoding low transfer rate video images.

Applicant respectfully submits that claim 1 is believed to be patentable because the Examiner has failed to establish a *prima facie* case of obviousness. For example claim 1 recites:

A device for selecting a coding mode for a video encoding system, comprising:
a first memory . . . ;
a second memory . . . ;
a motion prediction part . . . ; and
an SAD examiner for generating coding selection information for coding the *frame* data in an intra-coding mode when the SAD value of the input *frame* data output from the motion prediction part exceeds a predetermined SAD threshold, or in an inter-coding mode when the SAD value of the input *frame* data does not exceed the predetermined SAD threshold.

In the section of Iverson cited by the Examiner, a conventional *block* classification scheme is disclosed. Col. 5, lines 42-67. Depending on a “inter-SAD” and an “intra-SAD” values, a *block* may be encoded using intra-frame or inter-frame encoding. Col. 5, lines 60-67. Likewise, in the section of Jeong cited by the Examiner, the reference teaches coding a *macro block* using inter coding or intra coding, depending on certain *macro block*-based values. In contrast to both references, claim 1 recites coding the *frame* data in an intra-coding mode or in an inter-coding mode under certain conditions.

In addition, Applicant submits that Iverson and Jeong individually fails to teach, suggest, or provide motivation for a first memory for storing frame data of an input image, and a second memory for storing the previous frame data, as claimed. In the Office Action, the Examiner states that Iverson shows the input of current frame data and reference frame data (Fig. 3, motion

estimator 302) and that it would have been obvious to one skilled in the art to have different storage means or memories for the current frame data and the reference frame data. The Examiner also states that Jeong shows one memory for storing the frame data needed (Fig. 2, frame memory 108). The Examiner also states that the desire to make the apparatus “more efficient by allowing the system to perform more complex operations due to the increase in memory,” supplies the motivation to have two separate memories. To the contrary, the desire to achieve greater efficiency may not necessarily lead to having two separate memories for two sets of data, but rather, a single memory may result.

Moreover, Applicant requests the Examiner to point out where the claimed motion prediction part and the SAD examiner are disclosed in the reference.

Therefore, for at least the above reasons, claim 1 is believed to be patentable.

Similarly, claims 2 and 3 are believed to be patentable over Iverson and Jeong for at least the reasons submitted for claim 1.

Applicant adds new claims 4-7. The new claims do not add new matter and are believed to be patentable for at least the reasons submitted for their respective base claims.


In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
U.S. Appln No. 09/726,510

Atty Dkt No. Q61373

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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*Granted limited recognition under
37 C.F.R. § 10.9(b), as shown in a copy of
the same filed on January 3, 2005, at the
U.S.P.T.O.

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